

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently Amended) A method for ~~inhibiting proliferation of a tumor~~eliciting in a human ~~mammal~~ an immune response against a tumor, the method comprising: administering to the ~~mammal~~human harboring the tumor a composition comprising,
 - (a) an amount of an immunogenic population of purified stress protein-peptide complexes obtained from tumor tissue excised from the human, wherein said population of complexes is a combination of two or more of Hsp70-peptide complexes, Hsp90-peptide complexes, and gp96-peptide complexes, wherein said complexes each comprise a stress protein noncovalently associated with a peptide, and wherein the amount is sufficient to elicit an immune response against the tumor;~~an immunogenic stress protein-peptide complex isolated from a cell derived from the tumor, said complex being operative to initiate in the mammal an immune response against said tumor, and~~
 - (b) a pharmaceutically acceptable carrier;in an amount sufficient to elicit in the mammal an immune response against the tumor thereby inhibiting proliferation of the tumor.
- 2-18. (Canceled)
19. (Currently Amended) An immunogenic isolated population of ~~immunogenic purified~~ human stress protein-peptide complexes ~~isolated~~obtained from human tumor tissue excised from a human, wherein said complexes each comprise human gp96 noncovalently associated with a peptide.
20. (Currently Amended) An immunogenic isolated population of ~~immunogenic purified~~ human stress protein-peptide complexes ~~isolated~~obtained from human tumor tissue excised from a human, wherein said population of complexes is a combination of two or more of Hsp70-peptide complexes, Hsp90-peptide complexes, and gp96-peptide complexes; and wherein said complexes each comprise a stress protein noncovalently associated with a peptide.

21. (Currently Amended) A composition comprising:
- (a) a therapeutically effective amount of purified immunogenic human stress protein-peptide complexes ~~isolated~~obtained from human tumor tissue excised from a human, wherein said complexes each comprise gp96 noncovalently associated with a peptide; and
 - (b) a pharmaceutically acceptable carrier.
22. (Currently Amended) A method for treating a ~~mammal~~human having a tumor sensitive to treatment with a human gp96-peptide complex comprising administering to the ~~mammal~~human a composition comprising:
- (a) an amount of purified immunogenic human gp96-peptide complexes ~~isolated~~obtained from human tumor tissue excised from a human, wherein the amount is sufficient to elicit an immune response against the tumor, and wherein said complexes each comprise gp96 noncovalently associated with a peptide; and
 - (b) a pharmaceutically acceptable carrier.
23. (Canceled)
24. (Currently Amended) The method of claim ~~23~~22, wherein the ~~mammal~~human having the tumor is the human from which the complexes are ~~isolated~~obtained.
25. (Currently Amended) A method for treating a ~~mammal~~human having a tumor sensitive to treatment with a human gp96 peptide complex comprising:
- (a) ~~isolating~~purifying immunogenic human gp96-peptide complexes from human tumor tissue excised from a human, wherein said complexes each comprise a gp96 noncovalently associated with a peptide; and
 - (b) administering a composition comprising an amount of the ~~isolated~~purified complexes sufficient to elicit an immune response against the tumor, and a pharmaceutically acceptable carrier.
26. (Canceled)
27. (Currently Amended) The method of claim ~~26~~25, wherein the ~~mammal~~human having a tumor sensitive to treatment with a human gp96 peptide complex is the human from which the complexes are ~~isolated~~obtained.
28. (Currently Amended) A method for eliciting in a ~~mammal~~human an immune response against a tumor comprising administering to the ~~mammal~~human a composition comprising:

- (a) an amount of purified immunogenic human gp96-peptide complexes ~~isolated~~ obtained from human tumor tissue excised from a human, wherein the amount is sufficient to elicit an immune response against the tumor, and wherein said complexes each comprise gp96 noncovalently associated with a peptide; and
 - (b) a pharmaceutically acceptable carrier.
29. (Canceled)
30. (Currently Amended) The method of claim ~~29-28~~, wherein the ~~mammal~~ human in which the immune response is elicited is the human from which the complexes are ~~isolated~~ obtained.
31. (Currently Amended) The method of claim ~~1, 22, 23, 24, 25, 26, 27, 29~~ or 30 wherein the complexes are administered to the human in an amount in the range of 1 to 1000 micrograms of complex per kg body weight of the human per administration.
32. (Currently Amended) The method of claim ~~23, 24, 26, 27, 29 or 30~~ 31, wherein the complexes are administered to the human in an amount in the range of 100 to 250 micrograms of complex per kg body weight of the human per administration.
33. (Currently Amended) The ~~isolated-immunogenic~~ population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim 19, wherein said complexes are ~~isolated-using~~ purified by a process comprising Concanavalin A affinity chromatography.
34. (Currently Amended) The ~~isolated-immunogenic~~ population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim 19, wherein said complexes are ~~isolated~~ purified by a process comprising:
- (a) lysing cells of the tumor tissue to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.

35. (Currently Amended) The ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim 34, wherein the Concanavalin A is affixed to agarose beads.
36. (Currently Amended) The ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim 34, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.
37. (Canceled)
38. (Canceled)
39. (Currently Amended) The composition of claim 21, wherein said complexes are ~~isolated using~~ purified by a process comprising Concanavalin A affinity chromatography.
40. (Currently Amended) The composition of claim 21, wherein said complexes are ~~isolated~~ purified by a process comprising:
- (a) lysing cells of the tumor tissue to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.
41. (Previously Presented) The composition of claim 40, wherein the Concanavalin A is affixed to agarose beads.
42. (Previously Presented) The composition of claim 40, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.
43. (Canceled)
44. (Canceled)
45. (Currently Amended) The method of claim 22 or 28, wherein said complexes are ~~isolated using~~ purified by a process comprising Concanavalin A affinity chromatography.

46. (Currently Amended) The method of claim 22 or 28, wherein said complexes are ~~isolated~~ purified by a process comprising:
- (a) lysing cells of the tumor tissue to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.
47. (Previously Presented) The method of claim 46, wherein the Concanavalin A is affixed to agarose beads.
48. (Previously Presented) The method of claim 46, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.
49. (Canceled)
50. (Canceled)
51. (Currently Amended) The method of claim 25, wherein said ~~isolating~~ purifying step comprises using Concanavalin A affinity chromatography.
52. (Currently Amended) The method of claim 25, wherein said ~~isolating~~ purifying step comprises:
- (a) lysing cells of the tumor tissue to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.
53. (Previously Presented) The method of claim 52, wherein the Concanavalin A is affixed to agarose beads.
54. (Previously Presented) The method of claim 52, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.

55. (Canceled)
56. (Canceled)
57. (Previously Presented) The composition of claim 21, further comprising an adjuvant.
58. (Currently Amended) The composition of claim 57, wherein the adjuvant is selected from the group consisting of pluronic tri-block copolymer, muramyl dipeptide, a muramyl dipeptide derivative, detoxified endotoxin, saponin, a saponin derivative, QS-21, and liposome.
59. (Canceled)
60. (Previously Presented) The method of claim 22, 25, or 28, wherein the composition further comprises an adjuvant.
61. (Currently Amended) The method of claim 60, wherein the adjuvant is selected from the group consisting of pluronic tri-block copolymer, muramyl dipeptide, a muramyl dipeptide derivative, detoxified endotoxin, saponin, a saponin derivative, QS-21, and liposome.
62. (Canceled)
63. (Currently Amended) An ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes ~~isolated~~ obtained from human tumor cells isolated from a human, wherein said complexes each comprise human gp96 noncovalently associated with a peptide.
64. (Currently Amended) An ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes ~~isolated~~ obtained from human tumor cells isolated from a human, wherein said population of complexes is a combination of two or more of Hsp70-peptide complexes, Hsp90-peptide complexes, and gp96-peptide complexes; and wherein said complexes each comprise a stress protein noncovalently associated with a peptide.
65. (Currently Amended) A composition comprising:
- (a) a therapeutically effective amount of purified immunogenic human stress protein-peptide complexes ~~isolated~~ obtained from human tumor cells isolated from a human, wherein said complexes each comprise gp96 noncovalently associated with a peptide; and

- (b) a pharmaceutically acceptable carrier.
66. (Currently Amended) A method for treating a ~~mammal~~-human having a tumor sensitive to treatment with a human gp96-peptide complex comprising administering to the ~~mammal~~-human a composition comprising:
- (a) an amount of purified immunogenic human gp96-peptide complexes ~~isolated~~ obtained from human tumor cells isolated from a human, wherein the amount is sufficient to elicit an immune response against the tumor, wherein said complexes each comprise gp96 noncovalently associated with a peptide; and
 - (b) a pharmaceutically acceptable carrier.
67. (Canceled)
68. (Currently Amended) The method of claim ~~67~~66, wherein the ~~mammal~~-human having a tumor sensitive to treatment with a human gp96-peptide complex is the human from which the complexes are ~~isolated~~obtained.
69. (Currently Amended) A method for treating a ~~mammal~~-human having a tumor sensitive to treatment with a human gp96 peptide complex comprising:
- (a) ~~isolating-purifying~~ immunogenic human gp96-peptide complexes from human tumor cells isolated from a human, wherein said complexes each comprise a gp96 noncovalently associated with a peptide; and
 - (b) administering a composition comprising an amount of the ~~isolated-purified~~ complexes sufficient to elicit an immune response against the tumor, and a pharmaceutically acceptable carrier.
70. (Canceled)
71. (Currently Amended) The method of claim ~~70~~69 wherein the ~~mammal~~-human having a tumor sensitive to treatment with a human gp96-peptide complex is the human from which the complexes are ~~isolated~~obtained.
72. (Currently Amended) A method for eliciting in a ~~mammal~~-human an immune response against a tumor comprising administering to the ~~mammal~~-human a composition comprising:
- (a) an amount of purified immunogenic human gp96-peptide complexes ~~isolated~~ obtained from human tumor cells isolated from a human, wherein the amount is sufficient to elicit an immune response against the tumor, wherein said complexes each comprise gp96 noncovalently associated with a peptide; and

(b) a pharmaceutically acceptable carrier.

73. (Canceled)

74. (Currently Amended) The method of claim ~~73-72~~ wherein the ~~mammal~~ human in which the immune response is elicited is the human from which the complexes are ~~isolated~~ obtained.

75. (Currently Amended) The method of claim ~~67~~ 66, 68, ~~70~~ 69, 71, ~~73-72~~ or 74 wherein the complexes are administered to the human in an amount in the range of 1 to 1000 micrograms of complex per kg body weight of the human per administration.

76. (Currently Amended) The method of claim ~~67, 68, 70, 71, 73, or 74~~ 75, wherein the complexes are administered to the human in an amount in the range of 100 to 250 micrograms of complex per kg body weight of the human per administration.

77. (Currently Amended) The ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim 63, wherein said complexes are ~~isolated using~~ purified by a process comprising Concanavalin A affinity chromatography.

78. (Currently Amended) The ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim 63, wherein said complexes are ~~isolated~~ purified by a process comprising:

- (a) lysing cells of the tumor tissue to provide a lysate;
- (b) centrifuging the lysate to provide a clarified supernatant;
- (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
- (d) eluting said complexes with a buffer comprising α -methyl mannoside.

79. (Currently Amended) The ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim ~~68~~ 78, wherein the Concanavalin A is affixed to agarose beads.

80. (Currently Amended) The ~~isolated~~ immunogenic population of ~~immunogenic-purified~~ human stress protein-peptide complexes of claim 78, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.
81. (Canceled)
82. (Canceled)
83. (Currently Amended) The composition of claim 65, wherein said complexes are ~~isolated-purified by a process comprising~~ using Concanavalin A affinity chromatography.
84. (Currently Amended) The composition of claim 65, wherein said complexes are ~~isolated-purified~~ by a process comprising:
- (a) lysing cells of the tumor tissue to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.
85. (Previously Presented) The composition of claim 84, wherein the Concanavalin A is affixed to agarose beads.
86. (Previously Presented) The composition of claim 84, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.
87. (Canceled)
88. (Canceled)
89. (Currently Amended) The method of claim 66 or 72, wherein said complexes are ~~isolated-purified by a process comprising~~ using Concanavalin A affinity chromatography.
90. (Currently Amended) The method of claim 66 or 72, wherein said complexes are ~~isolated-purified~~ by a process comprising:
- (a) lysing cells of the tumor tissue to provide a lysate;

- (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.
91. (Previously Presented) The method of claim 90, wherein the Concanavalin A is affixed to agarose beads.
92. (Previously Presented) The method of claim 90, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.
93. (Canceled)
94. (Canceled)
95. (Currently Amended) The method of claim 69, wherein said ~~isolating-purifying~~ step comprises using Concanavalin A affinity chromatography.
96. (Currently Amended) The method of claim 69, wherein said ~~isolating-purifying~~ step comprises:
- (a) lysing cells of the tumor tissue to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.
97. (Previously Presented) The method of claim 96, wherein the Concanavalin A is affixed to agarose beads.
98. (Previously Presented) The method of claim 96, wherein said eluting step comprises washing with a buffer comprising 10% α -methyl mannoside.
99. (Canceled)
100. (Canceled)

101. (Previously Presented) The composition of claim 65, further comprising an adjuvant.
102. (Currently Amended) The composition of claim 101, wherein the adjuvant is selected from the group consisting of pluronic tri-block copolymer, muramyl dipeptide, a muramyl dipeptide derivative, detoxified endotoxin, saponin, a saponin derivative, QS-21, and liposome.
103. (Canceled)
104. (Previously Presented) The method of claim 66, 69, or 72, wherein the composition further comprises an adjuvant.
105. (Currently Amended) The method of claim 104, wherein the adjuvant is selected from the group consisting of pluronic tri-block copolymer, muramyl dipeptide, a muramyl dipeptide derivative, detoxified endotoxin, saponin, a saponin derivative, QS-21, and liposome.
106. (Canceled)
107. (Canceled)
108. (Previously Presented) The method of claims 66, 69, or 72, wherein the human tumor cells are leukemic cells.
109. (Canceled)
110. (Previously Presented) The method of claim 108, wherein the leukemic cells are isolated from a human with myelogenous leukemia, monocytic leukemia, or lymphocytic leukemia.
111. (New) A composition comprising (a) the immunogenic population of purified human stress protein-peptide complexes of claim 19, 20, 63, or 64, and (b) a chemotherapeutic agent or an antibiotic.
112. (New) A composition comprising (a) the immunogenic population of purified human stress protein-peptide complexes of claim 19, 20, 63, or 64, and (b) a bioactive agent.
113. (New) A composition comprising (a) the immunogenic population of purified human stress protein-peptide complexes of claim 19, 20, 63, or 64, and (b) a cytokine or an adjuvant.

114. (New) The composition of claim 113, wherein the adjuvant is selected from the group consisting of pluronic tri-block copolymer, muramyl dipeptide, a muramyl dipeptide derivative, detoxified endotoxin, saponin, a saponin derivative, QS-21, and liposome.
115. (New) The immunogenic population of purified human stress protein-peptide complexes of claim 19, 20, 63, or 64 wherein the tumor is selected from the group consisting of a sarcoma, a carcinoma, a malignant lymphoma, a myelogenous leukemia, a monocytic leukemia, a lymphocytic leukemia, and a metastasis thereof.
116. (New) The immunogenic population of purified human stress protein-peptide complexes of claim 19, 20, 63, or 64 wherein the human tumor tissue is from a bronchogenic carcinoma or a metastasis thereof.
117. (New) The immunogenic population of purified human stress protein-peptide complexes of claim 19, 20, 63, or 64 wherein the human tumor tissue is from a melanocarcinoma or a metastasis thereof.
118. (New) The immunogenic population of purified human stress protein-peptide complexes of claim 19, 20, 63, or 64 wherein the human tumor tissue is from a renal cell carcinoma or a metastasis thereof.
119. (New) The composition of claim 21 or 65 further comprising a chemotherapeutic agent or an antibiotic.
120. (New) The composition of claim 21 or 65 further comprising a bioactive agent.
121. (New) The composition of claim 21 or 65 further comprising a cytokine.
122. (New) The composition of claim 21 or 65, wherein the tumor is selected from the group consisting of a sarcoma, a carcinoma, a malignant lymphoma, a myelogenous leukemia, a monocytic leukemia, a lymphocytic leukemia, and a metastasis thereof.
123. (New) The immunogenic population of purified human stress protein-peptide complexes of claim 21 or 65 wherein the human tumor tissue is from a bronchogenic carcinoma or a metastasis thereof.
124. (New) The immunogenic population of purified human stress protein-peptide complexes of claim 21 or 65 wherein the human tumor tissue is from a melanocarcinoma or a metastasis thereof.

125. (New) The immunogenic population of purified human stress protein-peptide complexes of claim 21 or 65 wherein the human tumor tissue is from a renal cell carcinoma or a metastasis thereof.
126. (New) A composition comprising:
- (a) a therapeutically effective amount of purified immunogenic human stress protein-peptide complexes obtained from human tumor tissue excised from a human, wherein said complexes are a combination of two or more of Hsp70-peptide complexes, Hsp90-peptide complexes, and gp96-peptide complexes; and wherein said complexes each comprise a stress protein noncovalently associated with a peptide; and
 - (b) a pharmaceutically acceptable carrier.
127. (New) A composition comprising:
- (a) a therapeutically effective amount of purified immunogenic human stress protein-peptide complexes obtained from human tumor cells isolated from a human, wherein said complexes are a combination of two or more of Hsp70-peptide complexes, Hsp90-peptide complexes, and gp96-peptide complexes; and wherein said complexes each comprise a stress protein noncovalently associated with a peptide; and
 - (b) a pharmaceutically acceptable carrier.
128. (New) The composition of claim 126 or 127 further comprising a chemotherapeutic agent or an antibiotic.
129. (New) The composition of claim 126 or 127 further comprising a bioactive agent.
130. (New) The composition of claim 126 or 127 further comprising a cytokine or an adjuvant.
131. (New) The composition of claim 130, wherein the cytokine is selected from the group consisting of IL-1 α , IL-1 β , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IFN α , IFN β , IFN γ , TNF α , TNF β , G-CSF, GM-CSF, and TGF β .
132. (New) The composition of claim 113 or 121, wherein the cytokine is selected from the group consisting of IL-1 α , IL-1 β , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IFN α , IFN β , IFN γ , TNF α , TNF β , G-CSF, GM-CSF, and TGF β .

133. (New) The composition of claim 130, wherein the adjuvant is selected from the group consisting of pluronic tri-block copolymer, muramyl dipeptide, a muramyl dipeptide derivative, detoxified endotoxin, saponin, a saponin derivative, QS-21, and liposome.
134. (New) A method for making an immunogenic population of purified human stress protein-peptide complexes, the method comprising purifying a population of human stress protein-peptide complexes obtained from human tumor tissue excised from a human, wherein said complexes each comprise human gp96 noncovalently associated with a peptide.
135. (New) A method for making an immunogenic population of purified human stress protein-peptide complexes, the method comprising purifying a population of human stress protein-peptide complexes obtained from human tumor tissue excised from a human, wherein said complexes are a combination of two or more of Hsp70-peptide complexes, Hsp90-peptide complexes, and gp96-peptide complexes; and wherein said complexes each comprise a stress protein noncovalently associated with a peptide
136. (New) A method for making an immunogenic population of purified human stress protein-peptide complexes, the method comprising purifying a population of human stress protein-peptide complexes obtained from human tumor cells isolated from a human, wherein said complexes each comprise human gp96 noncovalently associated with a peptide.
137. (New) A method for making an immunogenic population of purified human stress protein-peptide complexes, the method comprising purifying a population of human stress protein-peptide complexes obtained from human tumor cells isolated from a human, wherein said complexes are a combination of two or more of Hsp70-peptide complexes, Hsp90-peptide complexes, and gp96-peptide complexes; and wherein said complexes each comprise a stress protein noncovalently associated with a peptide.
138. (New) The method of claim 133 or 134, wherein said purifying step comprises:
- (a) lysing cells of the tumor tissue to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and

- (d) eluting said complexes with a buffer comprising α -methyl mannoside.
139. (New) The method of claim 135 or 136, wherein said purifying step comprises:
- (a) lysing the tumor cells to provide a lysate;
 - (b) centrifuging the lysate to provide a clarified supernatant;
 - (c) contacting the supernatant with Concanavalin A under conditions such that the human stress protein-peptide complexes in the supernatant are bound to Concanavalin A; and
 - (d) eluting said complexes with a buffer comprising α -methyl mannoside.